

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A method for culturing cells, which comprises the steps of:
causing cells to adhere to a surface of a cell array substrate having a cell adhesiveness variation pattern that comprises a first region where at least part of population of the cells adhere and a second region where the at least part of population of the cells does not adhere, to give a cell array substrate with the cells adhered to the first region in a patterned state,;
transferring the adhered cells to a cell culture substrate in the patterned state; and
culturing the transferred cells,
wherein the transferring step comprises removing the cells from the first region without enzymatic degradation ~~or lowering temperature~~,
wherein the first region in the cell adhesiveness variation pattern has water contact angles between 10° and 40°,
and wherein the cell adhesiveness variation pattern is a pattern wherein the first region is arranged on the second region, said first region being linear.

2. (canceled).

3. (currently amended): The method according to claim 1 ~~or 2~~, wherein the cell adhesiveness variation pattern is formed of a cell adhesiveness variation layer that comprises a

cell adhesiveness variation material whose cell adhesiveness is varied by the action of a photocatalyst along with energy irradiation.

4. (original): The method according to claim 3, wherein the cell adhesiveness variation layer is a photocatalyst-comprising cell adhesiveness variation layer that comprises a photocatalyst and the cell adhesiveness variation material.

5. (original): The method according to claim 3, wherein the cell adhesiveness variation layer comprises a photocatalyst-comprising photocatalyst treatment layer and a cell adhesiveness variation material layer that comprises the cell adhesiveness variation material formed on the photocatalyst treatment layer.

6. (original): The method according to claim 3, wherein the cell adhesiveness variation pattern is formed by arranging the cell adhesiveness variation layer that comprises the cell adhesiveness variation material and the photocatalyst-comprising layer so that the layers face each other, and then carrying out energy irradiation.

7. (previously presented): The method according to claim 1, wherein the cell culture substrate is made of a biomaterial.

8. (canceled).

9. (previously presented): The method according to claim 1, wherein the cell adhesiveness variation pattern is a pattern wherein the first region, which is linear, and a space comprised of the second region are arranged alternately, the line width of the first region is between 20 μm and 200 μm , the space widths between such lines are each between 300 μm and 1000 μm , and the cells used are vascular endothelial cells.

10. (withdrawn): A cell tissue, which is formed by the method according to claim 1.

11. (withdrawn - previously presented): A cell adhesion substrate comprising a cell array substrate having a cell adhesiveness variation pattern that comprises a first region where at least part of population of the cells adhere and a second region where the at least part of population of the cells do not adhere, wherein cells are adhered to the first region in a cell adhesiveness variation pattern in the cell array substrate.

12. (withdrawn - previously presented): The cell adhesion substrate according to claim 11, wherein the first region in the cell adhesiveness variation pattern has water contact angles between 10° and 40°.

13. (withdrawn): The cell adhesion substrate according to claim 11 or 12, wherein the cell adhesiveness variation pattern is formed of a cell adhesiveness variation layer that comprises a cell adhesiveness variation material whose cell adhesiveness is varied by the action of a photocatalyst along with energy irradiation.

14. (withdrawn): The cell adhesion substrate according to claim 13, wherein the cell adhesiveness variation layer is a photocatalyst-comprising cell adhesiveness variation layer that comprises a photocatalyst and the cell adhesiveness variation material.

15. (withdrawn): The cell adhesion substrate according to claim 13, wherein the cell adhesiveness variation layer comprises a photocatalyst-comprising photocatalyst treatment layer and a cell adhesiveness variation material layer formed on the photocatalyst treatment layer that comprises the cell adhesiveness variation material.

16. (withdrawn): The cell adhesion substrate according to claim 13, wherein the cell adhesiveness variation pattern is formed by arranging the cell adhesiveness variation layer that comprises the cell adhesiveness variation material and the photocatalyst-comprising layer so that the layers face each other, and then carrying out energy irradiation.

17. (withdrawn): A method for regenerating a tissue of a subject, which comprises transferring cells derived from a subject and caused to adhere to the above cell adhesion substrate according to claim 11 onto a biological tissue of the subject in a patterned state and then growing the cells.

18. (previously presented): The method of according to claim 1, wherein the cells are comprised of two or more types of cells and the cell adhesiveness variation pattern comprises two or more of the first regions to which at least one type of the cells adhere, and two or more of the second regions to which the at least one type of the cells do not adhere.